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## REMARKS

Prior to the aforementioned Office action, claim 23 had been found by the Examiner to be allowable and Applicant had amended the remaining claims to include the feature recited in the allowable claim. In the most recent Office action, the Examiner withdrew the indication of allowability and rejected all of the claims based in part on newly cited art. By this amendment, Applicant has further amended claim 1 to distinguish the invention over the newly cited art, and submits the claims for reconsideration and re-examination in light of the remarks that follow.

More specifically, claims 1, 6-10, 21 and 22 were rejected as unpatentable under 35 U.S.C. §103(a). Claims 1, 6-10 and 21 were said to be unpatentable over the previously cited patent to Olds (US 5,574,073), in view of a newly cited patent, Seshadri (US 6,044,073). Claim 22 was said to be unpatentable over Olds in view of Seshadri, and further in view of Solondz (US 5,615,249).

The new rejection of claims 1, 6-10, 21 and 22 is based on the Examiner's contention that Olds teaches every element of claim 1 except the feature transferred from original claim 23. In this regard, the Examiner now relies on Seshadri, which is alleged to teach the feature: "wherein the selected criteria includes an amount of error correction selected by the user terminal."

Seshadri is concerned with a technique for more efficiently utilizing the bandwidth of a spread spectrum multiple access (SSMA) communication system. The problem addressed by Seshadri is that, under the IS-95 standard for SSMA systems, the same level of error protection is extended to all segments of a communication signal, even though some segments of a particular message may not be in need of as

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much error protection. (See, e.g., column 2, lines 22-39.) Error protection in SSMA systems is effected by encoding the data stream in such a way that redundancies are introduced, permitting error correction and recovery techniques to be successfully applied at the receiving end of a communication channel. According to Seshadri, this approach results in some segments of a user transmission being "over-coded," which is wasteful of bandwidth. The solution Seshadri proposes is referred to as unequal error protection (UEP), wherein each user transmission is divided into multiple (at least two) segments with different levels of "significance." In the disclosed example of two levels of significance, the more significant segment is afforded more error protection by one of three disclosed techniques: variable time UEP, variable code UEP and variable power UEP.

In the variable time UEP on which the Examiner focuses attention, the most significant signal segment is "time modulated," which is to say stretched out in time, relative to the least significant signal segment. Because the more significant signal segment takes longer to transmit, it is less prone to transmission errors. In the example given in the patent, the less significant signal segment is also time modulated, but in an opposite sense, compressing the transmission time of the segment relative to the more significant segment and relative to the original timing of both segments.

The Examiner notes that it is his position that "certain terminals will have data that is more sensitive to a signal error that others and therefore will request a greater degree of time modulation." He further states that "it would have been obvious ... to be motivated to modify the system of Olds by prioritizing different users according to their

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sensitivity to signal errors and having the users transmit data with varying degrees of

time modulation." Applicant respectfully disagrees, for the following reasons:

1)  Nothing in Seshadri suggests that the disclosed technique of time modulation

is intended to define different priorities among the users. In fact, the implication of the

disclosed example of time modulation is that each user's total bandwidth is not changed

by time modulation. The more significant segment is transmitted in a greater time than

is required by the standard, and the less significant segment is transmitted in less time,

but the total transmission time remains unchanged. If this were true of all users, they

would all retain the same (equal) priority.

2)  Nothing in Seshadri indicates a concern for avoiding interference. SSMA

technology inherently eliminates interference based on use of the same or close to the

same frequencies to communicate with users that are relatively closely spaced

geographically. In SSMA, all transmissions are spread over a wide spectrum of

frequencies and are separated based on their use of separately identifiable spreading

code sequences. Interference between signals of the same frequency transmitted at

the same time is simply not an issue in SSMA, and therefore was not a concern for

Seshadri.

3)  Accordingly, and notwithstanding the Examiner's assertion to the contrary,

there is nothing in either of the references to provide the necessary motivation to

combine them. The systems disclosed in Olds use FDMA and/or TDMA (see, e.g.,

column 3, lines 41-44), and it is not at all clear how the Seshadri time modulation

scheme could be implemented, or if it could be implemented at all, in an FDMA and/or

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TDMA system. Thus, even if the motivation were present, there is no teaching of how to effect such a combination.

To define the invention more clearly over the Seshadri reference, claim 1 has been amended to recite that the satellite based cellular communications system of the invention uses a combination of frequency-division and/or time-division multiple access. Otherwise, the claims have been amended only for clarity and to reflect that the word "criteria" is plural.

Claim 22 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Olds in view of Seshadri and further in view of Solondz (US 5,615,249). The latter newly cited patent was relied on for its disclosure of user prioritization based on a fee. Applicant acknowledges that Solondz discloses a cellular telephone system in which user priority is determined in part by a user level of service, which is fee related. Applicant maintains, however, that claim 22 should be patentable with claim 1, from which it depends.

In view of the foregoing remarks, Applicant respectfully requests withdrawal of the rejections and formal allowance of claims 1, 6-10, 21 and 22.

Respectfully submitted,

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